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**From:** Hannafin, Juliet [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=66FA77D0BDCD4834816A3833C25203F6-JHANNAFI]  
**Sent:** 3/13/2017 7:02:14 PM  
**To:** Jeff Wallace [jeff.wallace@terraphase.com]  
**CC:** Wagner, Amy [Wagner.Amy@epa.gov]; Siu, Jennifer [Siu.Jennifer@epa.gov]; Ota, Allan [Ota.Allan@epa.gov]; ZIFF, SARA [ZIFF.SARA@EPA.GOV]; Nagle, Greg [Nagle.Greg@epa.gov]  
**Subject:** FW: sims delayed sampling

Hi Jeff,

I heard the unfortunate news that after today, sampling will likely be postponed until Friday because of ship loading this week.

Let me know based on tides what times you anticipate sampling station #7 &/or #47 on Friday. If you sample either of those without us present, please be particularly cognizant of getting good photo documentation of the metallic crust that will likely be encountered, large fragments & debris that you separate from it, and archive.

I'm juggling who can be present to observe. Let me know if Thursday turns out to be a possibility too.

Thx,  
juliet

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**From:** Hannafin, Juliet  
**Sent:** Monday, March 13, 2017 8:42 AM  
**To:** 'Jeff Wallace' <jeff.wallace@terraphase.com>  
**Cc:** Wagner, Amy <Wagner.Amy@epa.gov>; Siu, Jennifer <Siu.Jennifer@epa.gov>; Ota, Allan <Ota.Allan@epa.gov>; ZIFF, SARA <ZIFF.SARA@EPA.GOV>; Wampler, David <Wampler.David@epa.gov>  
**Subject:** RE: sims Monday update

Hi Jeff,

I'm looking forward to getting another nice summary and updated schedule from you today. I'm real curious how things went on Friday, and what your next plans are. It's not clear to me whether Station #47 was sampled on Friday. I heard from Allan Ota and Sara Ziff that you were only able to get down to ~3 feet after 3 attempts at a Station. Was that Station #47? If so, I suspect the metallic crust was creating a barrier... but I thought the Vibracore would be able to penetrate that.

The weather is looking good, but I also hear there's a chance a ship might come to dock. Amy Wagner and Jennifer Siu from our office are still planning on making it out tomorrow morning. Please give me an idea of when you'll be coring at station #7.

Thanks,

Juliet Hannafin  
CWA Inspector/Scientist  
Water Section II (ENF 3-2)  
Enforcement Division  
USEPA, Region 9  
San Francisco  
(415) 972-3094

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**From:** Hannafin, Juliet  
**Sent:** Friday, March 10, 2017 2:51 PM  
**To:** 'Jeff Wallace' <jeff.wallace@terraphase.com>  
**Cc:** 'Matt Zeiter' <Matt.Zeiter@simsmm.com>; Siu, Jennifer <Siu.Jennifer@epa.gov>; Wagner, Amy <Wagner.Amy@epa.gov>; Ota, Allan <Ota.Allan@epa.gov>; ZIFF, SARA <ZIFF.SARA@EPA.GOV>  
**Subject:** RE: sims update

Thank you for the update, Jeff,  
I forwarded on to Allan Ota and Sara Ziff from our SF office who are out there right now observing. Yes, I can imagine how maneuvering and sampling around the north area would be tricky.  
It's looking like our staff Amy Wagner and Jennifer Siu will arrive next Tuesday to observe, and at that time it would be especially good to see either core 7 or 47 depending how sampling goes today. Perhaps they could also see #44 attempted again and/or #5 around the rock detected? Let me know if there's any changes made also to the times you're planning.... I do have the updated schedule you sent based on clocks moving forward 1 hr.  
Thanks,  
Juliet  
P.S. I just heard from Allan and Sara who were out observing this afternoon... they think they saw #47 station being sampled, but apparently the vibracore was hitting refusal after only 3 ft or so? (and 3 attempts?) I thought the Vibracore would be able to penetrate the metallic crust. Let's talk on Monday about Stations 7 and 47, ok?

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**From:** Jeff Wallace [mailto:jeff.wallace@terraphase.com]  
**Sent:** Wednesday, March 08, 2017 10:14 PM  
**To:** Hannafin, Juliet <Hannafin.Juliet@epa.gov>  
**Cc:** Melisa Cohen <Melisa.Cohen@simsmm.com>; Peter Zawislanski <peter.zawislanski@terraphase.com>  
**Subject:** RE: sims update

Hi Juliet:

We will plan to see your folks on Friday afternoon and core at either 7 or 43 so they can observe. Based on your schedule adjustment, we will focus on riprap/intertidal stations tomorrow (Thursday).  
Thanks much for providing your day/time schedule.

#### **Report from today**

We cored at 50 and 44 today on the north side, as well as 40 on the south side. We also collected surface samples at the four southernmost stations on the south side.

#### **Tentative plan for Friday**

Access the north side of the apron around 7 am and core at 41, 43, 48 and 49, order at the discretion of the crew (we won't be able to hit all of these, so another day will be needed in this northern section).

We will likely remain at that north side, trapped by tide cycle, until your team arrives when we will core at 47 unless the crew determines they need to transit back to the south side. In the latter case, we'll set up on 7 for your people to observe.

After we wrap up on Friday, we'll review the outstanding work and provide you a plan for Monday so you can make yours. I believe Sims is expecting a ship to come in on Monday. At this time, I don't know to what extent if any that may affect our work.

#### **Coring Observations**

In general, recovery of 8 to 9 feet has been achieved, including at station 6 adjacent to the apron.

At 44, were only able to penetrate 2.9 ft into the mud. We'll return to this station at a later date and try again.

Also, of note, we sounded at station 5 yesterday but detected large rock (clearly discernable with our plate-style sounder) which cannot be penetrated. Our expectation is that the rock is localized placement near the pile, and based on that we plan to slide station 5 slightly south towards 3 and anticipate being able to core this location, just slightly offset.

#### Other

This morning before beginning sampling waiting for our tidal window to get inside the wharf, we took the opportunity to inspect possible pathways to reach 52. It does appear feasible with our equipment. We are evaluating possible work around. Using a small vessel with less beam that can fit between piles, and going back to the piston core device that we used last summer may be the best option.

Thanks, Jeff

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**From:** Hannafin, Juliet [mailto:Hannafin.Juliet@epa.gov]

**Sent:** Wednesday, March 08, 2017 12:26 PM

**To:** Jeff Wallace <jeff.wallace@terraphase.com>

**Cc:** Melisa Cohen <Melisa.Cohen@simsmm.com>; Peter Zawislanski <peter.zawislanski@terraphase.com>; Ota, Allan <Ota.Allan@epa.gov>; ZIFF, SARA <ZIFF.SARA@EPA.GOV>; Wagner, Amy <Wagner.Amy@epa.gov>; Siu, Jennifer <Siu.Jennifer@epa.gov>; Ross, Brian <Ross.Brian@epa.gov>; Wampler, David <Wampler.David@epa.gov>; Campbell, Rich <Campbell.Rich@epa.gov>; Husby, Peter <Husby.Peter@epa.gov>

**Subject:** RE: sims update

Hello Jeff,

Thank you very much for the email summary (below) of your sampling thus far.

How deep did you get yesterday? At core 6 did you encounter the metallic crust and presumably penetrate through it? On days that we can't make it to observe, I'd appreciate hearing how deep you got, and whether you encountered the metallic crust (or anything else of note, e.g. obvious color difference, debris, etc).

It's looking like this **Friday** will actually be the next day we can make it out, and yes, we would especially like to observe **either core 7 or 43 at that time**. It would be nice if you could do **one of those on Friday, and the other next week** when we are likely to make it out a third time for observations.

This Friday, EPA marine environmental scientist **Allan Ota** and environmental engineer **Sara Ziff** will be out at the wharf to observe (I will not be present, but Sara Ziff was there last year). I see based on your tide/sampling schedule that you plan on sampling between ~1:30p – 6:30p this Friday. Please wait until Allan and Sara arrive before you start the Vibracore for Station 7 or 47. It's my understanding that you can only use the Vibracore at Station 7 when the tide is between 3' to 6' (which appears to be ~1:30p – 3p), so Allan and Sara will plan on being at the wharf by 1:30p.

**Give me a call or email me to verify you received this.** Tomorrow I may be hard to reach, in which case contact Allan Ota (415) 972-3476 or Sara Ziff (415) 972-3536.

Enjoy the pleasant weather.

Juliet Hannafin  
CWA Inspector/Scientist  
Water Section II (ENF 3-2)  
Enforcement Division  
USEPA, Region 9  
San Francisco  
(415) 972-3094

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**From:** Jeff Wallace [<mailto:jeff.wallace@terrphase.com>]

**Sent:** Wednesday, March 08, 2017 9:56 AM

**To:** Hannafin, Juliet <[Hannafin.Juliet@epa.gov](mailto:Hannafin.Juliet@epa.gov)>

**Cc:** Melisa Cohen <[Melisa.Cohen@simsmm.com](mailto:Melisa.Cohen@simsmm.com)>; Peter Zawislanski <[peter.zawislanski@terrphase.com](mailto:peter.zawislanski@terrphase.com)>

**Subject:** sims update

Hi Juliet:

**Monday**

Cores advanced at stations 38, 39 and 8

**Tuesday**

Cores advanced at stations 9, 2, 4 and 6

At this point we have 3 cores remaining to complete on the south side of the apron (40, 5 and 7).

We have not yet collected any of the ponar/surface samples in the study area or sampled at the intertidal background stations; at previously indicated, the samples will be collected as the opportunity presents.

**Plan for today (Wednesday)**

This morning we intend to transit under the apron to the north side with the intention of coring at two or three of the following: stations 48, 49, and 50. As you know the access in/out to the north side is very challenging requiring a balance between having sufficient draft to motor and clearance for the vessel. Depending on these factors, we may core at station 40 on the south side until conditions are suitable, or after working on the north side.

**Thursday Plan**

I understand you plan to visit the site. We will aim to core at one or more of the following station: 7, 43 and 47 while you are onsite tomorrow. Later today, I will provide you an estimate of the time we anticipate being ready to core these locations so you can be onsite to observe if you want to.

Thanks, Jeff

**Jeff Wallace, RG, LHg**

Principal Geologist

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